STATEMENT OF BASIS/FINAL DECISION AND RESPONSE TO COMMENTS SUMMARY

REGION IV
ID#: 7535

Koppers/Beazer East

Gainesville, Florida
September 30, 1994

Facility/Unit Type:	**Wood preserver of poles and lumber**
Contaminants:	**Metals, semi-volatiles, volatiles**
Media:	**Soil, ground water, surface water**
Remedy:	**Pump and treat ground water, possible soil excavation**

FACILITY DESCRIPTION

On March 31, 1987, Koppers received the portion of the RCRA permit which covers the 1984 HSWA. The HSWA portion of the RCRA permit became effective one month later. Because remediation of the solid waste management units (SWMUs) is currently being conducted under the oversight of CERCLA, EPA is allowing the facility to submit CERCLA documents as a means of complying with HSWA's corrective action requirements. If at any time EPA determines that remediation of the SWMUs is not proceeding in an acceptable manner, EPA will invoke the full corrective action requirements of HSWA and will require submittal of stand-alone HSWA documents. Overall, of the ten SWMUs identified by RCRA, seven require corrective measures which are covered by a record of decision (ROD) signed September 27, 1990. A Unilateral Administrative Order (UAO) was issued and became effective on March 29, 1991.

The 170-acre Koppers/Beazer East site is an active wood treating facility located in Gainesville, Florida. Atlantic Coast Line Railroad originally operated the plant until they leased the operation to American Lumber and Treating in 1936. In 1954, Koppers Industries, Inc. purchased American Lumber and Treating's stock and, in 1982, Koppers purchased the land. After a series of acquisitions and name changes, the corporate permittees regulated under the RCRA permit are Beazer East, Inc. and Koppers Industries, Inc. (KII). For consistency, this summary will use the name "Koppers" to identify this RCRA site. The Koppers and Cabot facilities are listed jointly on the NPL.

Three different chemicals have been used for wood preserving over the years at the Koppers site: creosote, pentachlorophenol (PCP), and chromated copper arsenate (CCA). Koppers currently only uses CCA. The 1986 visual site investigation (VSI) of the Koppers facility revealed several old surface impoundments and drip tracks associated with the CCA, creosote, and PCP preserving. Ten different SWMUs were identified at the site.

The Koppers facility is bordered on the west and north by residential homes. To the south is a public road which connects local neighborhoods to shopping centers, strip malls, and restaurants. A shopping center, small businesses, a recycling center, and an undeveloped marsh are located on the eastern border of Koppers. Koppers is adjacent to the former Cabot Corporation wood treating and pine tar-rendering facility, which produced charcoal, pine oils, and pine tar. The Cabot operation was discontinued in 1964, and a shopping plaza is now located on a major section of the site.

The NPL site is underlain by several hundred feet of unconsolidated to semiconsolidated marine and nonmarine deposits of sand, clay, marl, gravel, limestone, dolomite and dolomitic limestone. The uppermost units consist of deposits of predominantly fine-grained sand with discontinuous lenses of silty sand and silty clay with a thickness of 20 to 25 feet and increasing clay content with depth. Below the sand unit lies the Hawthorn formation, which is composed of blue green clay with limestone and sand units. The Hawthorn is believed to be between 90 and 150 feet thick. The Floridian aquifer is below the Hawthorn Formation. The depth to the top of the

CONTAMINATION DETECTED AND CLEANUP GOALS

Media	Estimated Volume	Contaminant	Maximum Concentration	Action Level	Cleanup Goals	Point of Compliance
Ground water		anthracene	17ppb		1,310ppb	within facility boundary
		phenanthrene	280		130	
		acenaphthylene	12		130	
		acenaphthene	540		260	
		fluorene	210		180	
		pyrene	1.1		130	
		naphthalene	2,700		18	
		total potentially carcinogenic PAHs	5		0.003	
		phenol	11,000		2,630	
		pentachlorophenol	120		0.1	
		arsenic	Not avail.		50	
		chromium	0.230		100	
		benzene	N/A		1	
Soil		anthracene	4,900ppm		7,700ppm	at identified unit
		phenanthrene	9,500		770	
		acenaphthylene	75		72.3	
		acenaphthene	3,900		389	
		fluorene	4,500		323	
		pyrene	4,300		673	
		naphthalene	6,200		211	
		potentially carcinogenic PAHs	730		0.59	
		phenol	0.81		4.28	
		pentachlorophenol	140		2.92	
		arsenic	704		27	
		chromium	576		92.7	
		benzene	N/A		N/A	

Floridian at Koppers is approximately 200 to 250 feet.

The water table is approximately three to seven feet below ground surface. There are two general zones within the shallow aquifer which are monitored. Shallow wells are constructed with screens positioned between five to fifteen feet below ground surface. The direction of ground-water flow within this shallow zone conforms with the surface topography. Deeper monitoring wells are screened from 20 to 25 feet below ground surface and immediately above the Hawthorn Formation. Ground-water flow in this deeper portion of the shallow aquifer is to the northeast.

In 1994, Koppers closed its previously RCRA-permitted container storage area which consisted of a small concrete pad used to store a small number of hazardous waste drums.

EXPOSURE PATHWAYS

Three potential human exposure pathways were investigated during the risk assessment (RA): direct contact to workers onsite, direct contact to general public onsite, and potential contact to general public offsite.

The RA determined that compliance with the applicable Occupational Safety and Health Administration (OSHA) regulations would prohibit direct contact to onsite workers. Because the Koppers facility is fenced and has a locked gate, direct contact of the general public with source areas currently in use is expected to be infrequent.

To determine risks offsite, the RA calculated exposure concentrations for direct contact with sediment and soil. Ingestion of aquatic organisms

was determined to be unlikely due to the small size and intermittent flow of the ditch. Exposure concentrations for the possible inhalation of volatiles were also calculated. Although there are currently no users of the shallow aquifer, a hypothetical ground-water use was developed and assessed.

Two potential pathways were identified for environmental exposure: terrestrial and aquatic. Although the potential for adverse effects to individuals inhabiting these sites exists, it is unlikely that these will measurably affect the population because potentially-affected areas are not major sites for reproduction.

SELECTED REMEDY

The 1990 ROD proposes to treat, where feasible, contamination to health-based levels and to prevent exposure to contaminants in areas where treatment is infeasible. The remedies currently listed in the ROD include: 1) excavation and soil washing of contaminated soils from the North and South Lagoon areas (SWMUs 1 and 2), and/or bioremediation and/or solidification/stabilization of residual materials and onsite disposal of treated soils; 2) in-situ bioremediation and institutional controls for process areas, including the former cooling pond (SWMU 9) and Drip Track Areas (SWMUs 5-8); and 3) extraction of contaminated ground water from the shallow aquifer and pretreatment by using two primary granular activated carbon units prior to discharge into the Gainesville Regional Utility (GRU) treatment system.

Soil excavation was originally included in the remedy because it was believed to be an appropriate option for removing the source of ground-water contamination. However, further sampling indicated that dense non-aqueous phase liquids (DNAPLs) are present at depth. This is believed to be the major source of ground-water contamination and not necessarily the contaminated soil in the closed lagoons. Therefore, a different or expanded remedial approach will be necessary. The UAO has been amended to account for this new investigation. The ground-water extraction and treatment systems have been installed and are operational.

INNOVATIVE TECHNOLOGIES CONSIDERED

No innovative technologies have been considered to date; however, the DNAPLs might warrant their consideration.

PUBLIC PARTICIPATION

The public comment period for the ROD for the Koppers/Beazer site began August 8, 1990, and ended September 7, 1990. A public meeting to describe the preferred alternative was held August 14, 1990. On September 27, 1990, the ROD was signed.

The HSWA Modification to incorporate the remedy selected under the 1990 CERCLA ROD was placed on public notice from September 15, 1992 to December 1, 1992. EPA received comments from the facility. On September 30, 1994, EPA issued the HSWA portion of the RCRA permit. Because no petition for review was filed, the HSWA portion of the RCRA permit became effective on October 30, 1994.

NEXT STEPS

It is expected that the 1990 ROD will be amended to address the DNAPLs and contaminated lagoons (i.e., the soil excavation component of the selected remedy). For those units currently covered by the selected remedy, the HSWA portion of the RCRA permit includes a condition which declares that the HSWA selected remedy is that of the 1990 ROD and any amendments to the ROD. Therefore, if the 1990 ROD is amended to address DNAPLs, then the HSWA portion of the RCRA permit will not have to be modified again.

The facility will continue to monitor ground water to determine the effectiveness of the recovery system. After the system has been operational for two years, the facility must analyze its effectiveness

and suggest any modifications. EPA may also require modifications if necessary.

Although the ground-water recovery system is operational, the remedial options for soil have not been initiated because the DNAPL contamination must be reanalyzed. A new feasibility study is currently being developed for Agency review. The ROD is expected to be amended/modified in FY 1995 to incorporate the new remedial system for contaminated soil and DNAPLs.

KEY WORDS

Ground water, soil, surface water; direct contact, ingestion (gw, sw); VOCs, SVOCs, organics, phenols; excavation, extraction, soil washing, monitoring (gw), offsite discharge, publicly-owned treatment works, solidification/ stabilization.

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